OIPE #5

2113

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 09/898,556A

CRF Processing Date: 3/2/2002

Edited by: _____

Verified by: _____ (STIC staff)

ENTERED

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☑ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____.
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☐ Other: _____

*Examiner: Th above corrections must be communicated to th applicant In th first Office Action. DO NOT send a copy of this form.

3/1/95

OIPE

RAW SEQUENCE LISTING DATE: 03/07/2002
PATENT APPLICATION: **US/09/898,556A** TIME: 19:05:08

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF3\03072002\I898556A.raw**

```
      3 <110> APPLICANT: C. Frank Bennett
      4       Susan M. Freier
      6 <120> TITLE OF INVENTION: ANTISENSE MODULATION OF HKR1 EXPRESSION
      8 <130> FILE REFERENCE: RTS-0248
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/898,556A
C--> 10 <141> CURRENT FILING DATE: 2001-07-03
     10 <160> NUMBER OF SEQ ID NOS: 89
     13 <210> SEQ ID NO: 1
     14 <211> LENGTH: 20
     15 <212> TYPE: DNA
     16 <213> ORGANISM: Artificial Sequence
     18 <220> FEATURE:
     19 <223> OTHER INFORMATION: Antisense Oligonucleotide
     21 <400> SEQUENCE: 1
     22 tccgtcatcg ctcctcaggg                                              20
     25 <210> SEQ ID NO: 2
     26 <211> LENGTH: 20
     27 <212> TYPE: DNA
     28 <213> ORGANISM: Artificial Sequence
     30 <220> FEATURE:
     31 <223> OTHER INFORMATION: Antisense Oligonucleotide
     33 <400> SEQUENCE: 2
     34 atgcattctg cccccaagga                                              20
     38 <210> SEQ ID NO: 3
     39 <211> LENGTH: 2772
     40 <212> TYPE: DNA
     41 <213> ORGANISM: Homo sapiens
     43 <220> FEATURE:
     44 <221> NAME/KEY: CDS
     45 <222> LOCATION: (3)...(2096)
     47 <400> SEQUENCE: 3
     48 ca ggc gcg tta agc tgg ttg gga ccc ggg aag gcc tcc ctc tta agg    47
     49    Gly Ala Leu Ser Trp Leu Gly Pro Gly Lys Ala Ser Leu Leu Arg
     50     1               5                  10                  15
     52 tct ttc cca cac ctc tgc tcc ttg tta cct gac ttt cgg ctt cag gat   95
     53 Ser Phe Pro His Leu Cys Ser Leu Leu Pro Asp Phe Arg Leu Gln Asp
     54                  20                  25                  30
     56 ccg cgg cgt gca ccc gcg ttc cat ctg tct tct gag act ttg ccc ttc   143
     57 Pro Arg Arg Ala Pro Ala Phe His Leu Ser Ser Glu Thr Leu Pro Phe
     58              35                  40                  45
     60 tcc agg aag agc act cag gag acc agg aaa atg gct aca ggg ctc ctg   191
     61 Ser Arg Lys Ser Thr Gln Glu Thr Arg Lys Met Ala Thr Gly Leu Leu
     62          50                  55                  60
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Input Set : A:\PTO.AMC.txt
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64 aga gcc aaa aaa gag gcg ttc gtg gca ttc agg gat gtg gct gtg tac   239
65 Arg Ala Lys Lys Glu Ala Phe Val Ala Phe Arg Asp Val Ala Val Tyr
66      65                  70                  75
68 ttc acc cag gag gag tgg agg ttg ttg agc cct gct cag agg acc ctg   287
69 Phe Thr Gln Glu Glu Trp Arg Leu Leu Ser Pro Ala Gln Arg Thr Leu
70  80                  85                  90                  95
72 cac agg gag gtg atg ctg gag act tat aac cat ctg gtc tca ctg gaa   335
73 His Arg Glu Val Met Leu Glu Thr Tyr Asn His Leu Val Ser Leu Glu
74                 100                 105                 110
76 att cca tct tct aaa cca aaa ctc att gct cag ctg gag cga ggg gaa   383
77 Ile Pro Ser Ser Lys Pro Lys Leu Ile Ala Gln Leu Glu Arg Gly Glu
78             115                 120                 125
80 gcg ccc tgg aga gag gag aga aaa tgt cca ctg gac ctc tgt cca gaa   431
81 Ala Pro Trp Arg Glu Glu Arg Lys Cys Pro Leu Asp Leu Cys Pro Glu
82         130                 135                 140
84 tcg aag cca gaa att caa ctt agt ccc tcc tgc cct ctg att ttc tcc   479
85 Ser Lys Pro Glu Ile Gln Leu Ser Pro Ser Cys Pro Leu Ile Phe Ser
86     145                 150                 155
88 agt cag caa gct ctc agc caa cat gtg tgg ctg agt cat ctc tct cag   527
89 Ser Gln Gln Ala Leu Ser Gln His Val Trp Leu Ser His Leu Ser Gln
90 160                 165                 170                 175
92 ctg ttt tca agt tta tgg gca gga aat cct ctc cac ctg gga aaa cac   575
93 Leu Phe Ser Ser Leu Trp Ala Gly Asn Pro Leu His Leu Gly Lys His
94                 180                 185                 190
96 tat cca gaa gat cag aaa caa cag cag gat cca ttc tgc ttt agt ggc   623
97 Tyr Pro Glu Asp Gln Lys Gln Gln Gln Asp Pro Phe Cys Phe Ser Gly
98             195                 200                 205
100 aaa gca gaa tgg att caa gag gga gaa gac tcc aga ctc ctg ttt ggg   671
101 Lys Ala Glu Trp Ile Gln Glu Gly Glu Asp Ser Arg Leu Leu Phe Gly
102         210                 215                 220
104 aga gta agc aaa aat ggc act tca aag gca ctt tcc agc cca cct gaa   719
105 Arg Val Ser Lys Asn Gly Thr Ser Lys Ala Leu Ser Ser Pro Pro Glu
106     225                 230                 235
108 gaa caa cag cca gca cag tcc aag gaa gac aac aca gtg gtg gat ata   767
109 Glu Gln Gln Pro Ala Gln Ser Lys Glu Asp Asn Thr Val Val Asp Ile
110 240                 245                 250                 255
112 ggg tcc agc cct gaa cgg agg gca gat cta gag gaa aca gac aaa gta   815
113 Gly Ser Ser Pro Glu Arg Arg Ala Asp Leu Glu Glu Thr Asp Lys Val
114                 260                 265                 270
116 ttg cat ggt tta gaa gtc tca gga ttt gga gaa atc aaa tat gaa gag   863
117 Leu His Gly Leu Glu Val Ser Gly Phe Gly Glu Ile Lys Tyr Glu Glu
118             275                 280                 285
120 ttt ggg cca ggc ttt atc aag gag tca aac ctc ctt agc ctc cag aag   911
121 Phe Gly Pro Gly Phe Ile Lys Glu Ser Asn Leu Leu Ser Leu Gln Lys
122         290                 295                 300
124 aca caa act ggg gag aca cct tac atg tac act gag tgg gga gac agc   959
125 Thr Gln Thr Gly Glu Thr Pro Tyr Met Tyr Thr Glu Trp Gly Asp Ser
126     305                 310                 315
128 ttt ggc agt atg tca gtc ctc atc aaa aac cca agg aca cac tct ggg   1007
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Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\03072002\I898556A.raw

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129 Phe Gly Ser Met Ser Val Leu Ile Lys Asn Pro Arg Thr His Ser Gly
130 320                 325                 330                 335
132 gga aag cct tat gtg tgc agg gaa tgt ggg cga ggc ttt acg tgg aag   1055
133 Gly Lys Pro Tyr Val Cys Arg Glu Cys Gly Arg Gly Phe Thr Trp Lys
134                 340                 345                 350
136 tca aac ctg atc aca cat cag agg aca cac tca ggg gag aaa cct tat   1103
137 Ser Asn Leu Ile Thr His Gln Arg Thr His Ser Gly Glu Lys Pro Tyr
138             355                 360                 365
140 gtg tgc aag gat tgt gga cga ggc ttt act tgg aag tcg aac ctc ttt   1151
141 Val Cys Lys Asp Cys Gly Arg Gly Phe Thr Trp Lys Ser Asn Leu Phe
142         370                 375                 380
144 aca cat cag cgg aca cac tca ggg ctc aag cct tat gtg tgc aag gaa   1199
145 Thr His Gln Arg Thr His Ser Gly Leu Lys Pro Tyr Val Cys Lys Glu
146     385                 390                 395
148 tgt ggg cag agc ttt agc ctg aag tca aac ctc att acc cac cag agg   1247
149 Cys Gly Gln Ser Phe Ser Leu Lys Ser Asn Leu Ile Thr His Gln Arg
150 400                 405                 410                 415
152 gcg cac act ggg gag aag cct tat gtt tgc agg gaa tgt ggg cgt ggc   1295
153 Ala His Thr Gly Glu Lys Pro Tyr Val Cys Arg Glu Cys Gly Arg Gly
154                 420                 425                 430
156 ttt cgc cag cat tca cac ctg gtc aga cac aag agg aca cat tca gga   1343
157 Phe Arg Gln His Ser His Leu Val Arg His Lys Arg Thr His Ser Gly
158             435                 440                 445
160 gag aag cct tac att tgc agg gag tgt gag caa ggc ttt agc cag aag   1391
161 Glu Lys Pro Tyr Ile Cys Arg Glu Cys Glu Gln Gly Phe Ser Gln Lys
162         450                 455                 460
164 tca cac ctc atc aga cac tta agg aca cac aca gga gag aag cct tat   1439
165 Ser His Leu Ile Arg His Leu Arg Thr His Thr Gly Glu Lys Pro Tyr
166     465                 470                 475
168 gta tgc aca gaa tgt ggg cgt cac ttt agc tgg aaa tca aac ctc aaa   1487
169 Val Cys Thr Glu Cys Gly Arg His Phe Ser Trp Lys Ser Asn Leu Lys
170 480                 485                 490                 495
172 aca cac cag agg aca cac tca ggg gtt aaa cct tat gtc tgc ctg gag   1535
173 Thr His Gln Arg Thr His Ser Gly Val Lys Pro Tyr Val Cys Leu Glu
174                 500                 505                 510
176 tgc ggg cag tgc ttt agc ctg aag tca aac ctt aac aaa cac cag agg   1583
177 Cys Gly Gln Cys Phe Ser Leu Lys Ser Asn Leu Asn Lys His Gln Arg
178             515                 520                 525
180 tca cac acg ggg gag aag cca ttt gta tgt acg gag tgt ggg cga ggc   1631
181 Ser His Thr Gly Glu Lys Pro Phe Val Cys Thr Glu Cys Gly Arg Gly
182         530                 535                 540
184 ttt acc cgg aaa tca acc ctg atc acg cac cag agg aca cac tca ggg   1679
185 Phe Thr Arg Lys Ser Thr Leu Ile Thr His Gln Arg Thr His Ser Gly
186     545                 550                 555
188 gag aag cca ttt gta tgt gct gag tgt gga cga ggc ttt aat gat aag   1727
189 Glu Lys Pro Phe Val Cys Ala Glu Cys Gly Arg Gly Phe Asn Asp Lys
190 560                 565                 570                 575
192 tcc acc ctc att tca cac cag agg aca cat tca ggg gaa aag cct ttt   1775
193 Ser Thr Leu Ile Ser His Gln Arg Thr His Ser Gly Glu Lys Pro Phe
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PATENT APPLICATION: US/09/898,556A TIME: 19:05:08

Input Set : A:\PTO.AMC.txt
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194                 580                 585                 590
196 atg tgc agg gag tgt ggc aga agg ttt cgg cag aag cct aac ctg ttt   1823
197 Met Cys Arg Glu Cys Gly Arg Arg Phe Arg Gln Lys Pro Asn Leu Phe
198             595                 600                 605
200 agg cac aag agg gca cac tca ggt gcc ttt gtg tgc agg gag tgt ggg   1871
201 Arg His Lys Arg Ala His Ser Gly Ala Phe Val Cys Arg Glu Cys Gly
202         610                 615                 620
204 caa ggc ttt tgt gct aag tta act ctc att aaa cac cag aga gca cac   1919
205 Gln Gly Phe Cys Ala Lys Leu Thr Leu Ile Lys His Gln Arg Ala His
206     625                 630                 635
208 gca ggg ggg aag cct cat gtg tgc agg gag tgt ggg caa ggc ttt agc   1967
209 Ala Gly Gly Lys Pro His Val Cys Arg Glu Cys Gly Gln Gly Phe Ser
210 640                 645                 650                 655
212 cgg cag tca cac ctc att aga cac cag agg aca cat tca gga gag aag   2015
213 Arg Gln Ser His Leu Ile Arg His Gln Arg Thr His Ser Gly Glu Lys
214                 660                 665                 670
216 cct tat att tgc aga aag tgt gga cgg ggc ttt agt cgg aag tcc aac   2063
217 Pro Tyr Ile Cys Arg Lys Cys Gly Arg Gly Phe Ser Arg Lys Ser Asn
218             675                 680                 685
220 ctt atc aga cat cag agg aca cac tca gga tag aaactttatg tgtataggga 2116
221 Leu Ile Arg His Gln Arg Thr His Ser Gly
222         690                 695
224 atgtggtaca gcctttagcc aggagtcata cttcatcaga caccagagga cacacacagt 2176
226 gctgtggctt tttcagccat tgctagatac caaagtggag acattctgtg tgtgattatg 2236
228 catgagactg tactggtaag acttgtatct ccatccacct gaaggagaat tgctggctca 2296
230 ttttcaggag ccctgccctt cctcactgtg gatggtgggt tgtggaaacc cggtcaggta 2356
232 atgatagtgg caggaggcag tcaaatgccc aggcagatag gggtgggtac ctggtgaaac 2416
234 ccaaccttaa agctgaagac agtcccggct aaatcctcat actgaattga gaacctgtct 2476
236 tcccatttgg tgtgctttcc tccgattgat cccaaccctt cacctatttt acgtatacct 2536
238 gccctttcct aattggtttt tacactgctg tgcccacctt ttgagtggtg cctttgcata 2596
240 cttacaaatc agtcaacgtg tattccccta ttctgagccc ataaaagacc cagactcagc 2656
242 tgcagtgagg agagaaatca ccctgctgtg gaggttgggg accactccct gcatcccctc 2716
244 tccactgaga gctgttcttt tgctcaataa aattcttttc tacccatcct caccct     2772
247 <210> SEQ ID NO: 4
248 <211> LENGTH: 21
249 <212> TYPE: DNA
250 <213> ORGANISM: Artificial Sequence
252 <220> FEATURE:
253 <223> OTHER INFORMATION: PCR Primer
255 <400> SEQUENCE: 4
256 tgaaggagaa ttgctggctc a                                          21
259 <210> SEQ ID NO: 5
260 <211> LENGTH: 19
261 <212> TYPE: DNA
262 <213> ORGANISM: Artificial Sequence
264 <220> FEATURE:
265 <223> OTHER INFORMATION: PCR Primer
267 <400> SEQUENCE: 5
268 acctgaccgg gtttccaca                                            19
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RAW SEQUENCE LISTING DATE: 03/07/2002
PATENT APPLICATION: US/09/898,556A TIME: 19:05:08

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\03072002\I898556A.raw

271 <210> SEQ ID NO: 6
272 <211> LENGTH: 25
273 <212> TYPE: DNA
274 <213> ORGANISM: Artificial Sequence
276 <220> FEATURE:
277 <223> OTHER INFORMATION: PCR Probe
279 <400> SEQUENCE: 6
280 ctgcccttcc tcactgtgga tggtg 25
283 <210> SEQ ID NO: 7
284 <211> LENGTH: 19
285 <212> TYPE: DNA
286 <213> ORGANISM: Artificial Sequence
288 <220> FEATURE:
289 <223> OTHER INFORMATION: PCR Primer
291 <400> SEQUENCE: 7
292 gaaggtgaag gtcggagtc 19
295 <210> SEQ ID NO: 8
296 <211> LENGTH: 20
297 <212> TYPE: DNA
298 <213> ORGANISM: Artificial Sequence
300 <220> FEATURE:
301 <223> OTHER INFORMATION: PCR Primer
303 <400> SEQUENCE: 8
304 gaagatggtg atgggatttc 20
307 <210> SEQ ID NO: 9
308 <211> LENGTH: 20
309 <212> TYPE: DNA
310 <213> ORGANISM: Artificial Sequence
312 <220> FEATURE:
313 <223> OTHER INFORMATION: PCR Probe
315 <400> SEQUENCE: 9
316 caagcttccc gttctcagcc 20
319 <210> SEQ ID NO: 10
320 <211> LENGTH: 11173
321 <212> TYPE: DNA
322 <213> ORGANISM: Homo sapiens
324 <220> FEATURE:
326 <400> SEQUENCE: 10
327 aagcttcttg gctctctaag ttttattttc tattcactgt gagaagtact tggctattat 60
329 ttcaatattt ttcctgtccc ttttactctt tcctctcatt ctaggactcc caatttacct 120
331 gtatattgga ctgctggaaa tgtgtttctg aagattcata ttgtctcata agcttctgtt 180
333 catttttctt cagtcttttt tctctttttt gaggggtggg tggatatatg taatttctat 240
335 tcttttattt tcaaattcac taatctttct tctttttctg tttgctatta aacctgtcta 300
337 gtgaattttt aaatttcagt tgttttttte tttccccctc ccctcctctc ccctcctctc 360
339 ccctcccctc ccctcccctc ccctcccctc ccctcccctc ccctcccctc ctcttgtttc 420
341 tgtgggtttt aggagtgctc tcaggcaaga aagccacaaa caaaattatt acccctttct 480
343 gttgcaattt tttgagcata aactcttccc catcttctgg ctggttatgt atattttcca 540
345 gtgcctttga gtagttattt gttatatttt atccagtctt attatttct gctgcagggt 600
347 tcttgtgacc atttcagtct gctggcattt tcgttagtgg gcttcctcat acttatttt 660

VERIFICATION SUMMARY DATE: 03/07/2002
PATENT APPLICATION: **US/09/898,556A** TIME: 19:05:09

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF3\03072002\I898556A.raw**

L:10 M:270 C: Current Application Number differs, Replaced Current Application No
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date